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<110> Irwin H. Gelman Susan G. Jaken

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<400> 4

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Ala Glu Ser Gln Ala Asn Asp Val Gly Phe Lys Lys Val Phe Lys Phe Val Gly Phe Lys Phe Thr Val Lys Lys Asp Lys Asn Glu Lys Ser Asp Thr Val Gln Leu Leu Thr Val Lys Lys Asp Glu Gly Glu Gly Ala Glu Ala Ser Val Gly Ala Gly Asp His Gln Glu Pro Ser Val Glu Thr Ala Val Gly Glu Ser Ala Ser Lys Glu Ser Glu Leu Lys Gln Ser Thr Glu Lys Gln Glu Gly Thr Leu Lys Gln Glu Gln Ser Ser Thr Glu Ile Pro Leu Gln Ala Glu Ser Asp Gln Ala Ala Glu Glu Glu Ala Lys Asp Glu Gly Glu Glu Lys Glu Lys Glu Pro Thr Lys Ser Pro Glu Ser Pro Ser Ser Pro Val Asn Ser Glu Thr Thr Ser Ser Phe Lys Lys Phe Phe Thr His Gly Trp Ala Gly Trp Arg Lys Lys Thr Ser Phe Lys Lys Ser Lys Glu Asp Asp Leu Glu Thr Ala Glu Lys Arg Lys Glu Gln Glu Ala Glu Lys Val Asp Glu Glu Glu Lys Glu Lys Thr Glu Pro Ala Ser Glu Glu Gln Glu Pro Ala Glu Asp Thr Asp Gln Ala Arg Leu Ser Ala Asp Tyr Glu Lys Val Glu Leu Pro Leu Glu Asp Gln Val Gly Asp Leu Glu Ala Ser Ser Glu Glu Lys Cys Ala Pro Leu Ala Thr Glu Val Phe Asp Glu Lys Met Glu Ala His Gln Glu Val Val Ala Glu Val His Val Ser Thr Val Glu Lys Thr Glu Glu Glu Gly Gly Gly Glu Ala Glu Gly Gly Val Val Glu Gly Thr Gly Glu Ser Leu Pro Pro Glu Lys Leu Ala Glu Pro Gln Glu Val Pro Gln Glu Ala Glu Pro Ala Glu Glu Leu Met Lys Ser Arg Glu Met Cys Val Ser Gly Gly Asp His Thr Gln Leu Thr Asp Leu Ser Pro Glu Glu Lys Thr Leu Pro Lys His Pro Glu Gly Ile Val Ser Glu Val Glu Met Leu Ser Ser Gln Glu Arg Ile Lys Val Gln Gly Ser Pro Leu Lys Lys Leu Phe Ser Ser Gly Leu Lys Lys Leu Ser Gly Lys Lys Gln Lys Gly Lys Arg Gly Gly Gly Asp

Glu Glu Pro Gly Glu Tyr Gln His Ile His Thr Glu Ser Pro Glu Ser Ala Asp Glu Gln Lys Gly Glu Ser Ser Ala Ser Ser Pro Glu Glu Pro Glu Glu Thr Thr Cys Leu Glu Lys Gly Pro Leu Glu Ala Pro Gln Asp Gly Glu Ala Glu Glu Gly Thr Thr Ser Asp Gly Glu Lys Lys Arg Glu Gly Ile Thr Pro Trp Ala Ser Phe Lys Lys Met Val Thr Pro Lys Lys Arg Val Arg Arg Pro Ser Glu Ser Asp Lys Glu Glu Leu Glu Lys Val Lys Ser Ala Thr Leu Ser Ser Thr Asp Ser Thr Val Ser Glu Met Gln Asp Glu Val Lys Thr Val Gly Glu Glu Gln Lys Pro Glu Glu Pro Lys Arg Arg Val Asp Thr Ser Val Ser Trp Glu Ala Leu Ile Cys Val Gly Ser Ser Lys Lys Arg Ala Arg Lys Ala Ser Ser Ser Asp Asp Glu Gly Gly Pro Arg Thr Leu Gly Gly Asp Ser His Arg Ala Glu Glu Ala Ser Lys Asp Lys Glu Ala Gly Thr Asp Ala Val Pro Ala Ser Thr Gln Glu Gln Asp Gln Ala Gln Gly Ser Ser Ser Pro Glu Pro Ala Gly Ser Pro Ser Glu Gly Glu Gly Val Ser Thr Trp Glu Ser Phe Lys Arg Leu Val Thr Pro Arg Lys Lys Ser Lys Ser Lys Leu Glu Glu Lys Ala Glu Asp Ser Ser Val Glu Gln Leu Ser Thr Glu Ile Glu Pro Ser Arg Glu Glu Ser Trp Val Ser Ile Lys Lys Phe Ile Pro Gly Arg Arg Lys Lys Arg Ala Asp Gly Lys Gln Glu Gln Ala Thr Val Glu Asp Ser Gly Pro Val Glu Ile Asn Glu Asp Asp Pro Asn Val Pro Ala Val Pro Leu Ser Glu Tyr Asn Ala Val Glu Arg Glu Lys Met Glu Ala Gln Gly Asn Thr Glu Leu Pro Gln Leu Leu Gly Ala Val Tyr Val Ser Glu Glu Leu Ser Lys Thr Leu Val His Thr Val Ser Val Ala Val Ile Asp Gly Thr Arg Ala Val Thr Ser Val Glu Glu Arg Ser Pro Ser Trp Ile Ser Ala Ser Val Thr Glu Pro Leu Glu His Thr Ala Gly Glu Ala Met Pro Pro

Val Glu Glu Val Thr Glu Lys Asp Ile Ile Ala Glu Glu Thr Pro Val Leu Thr Gln Thr Leu Pro Glu Gly Lys Asp Ala His Asp Asp Met Val Thr Ser Glu Val Asp Phe Thr Ser Glu Ala Val Thr Ala Thr Glu Thr Ser Glu Ala Leu Arg Thr Glu Glu Val Thr Glu Ala Ser Gly Ala Glu Glu Thr Thr Asp Met Val Ser Ala Val Ser Gln Leu Thr Asp Ser Pro Asp Thr Thr Glu Glu Ala Thr Pro Val Gln Glu Val Glu Ser Gly Val Leu Asp Thr Glu Glu Glu Glu Arg Gln Thr Gln Ala Ile Leu Gln Ala Val Ala Asp Lys Val Lys Glu Glu Ser Gln Val Pro Ala Thr Gln Thr Val Gln Arg Thr Gly Ser Lys Ala Leu Glu Lys Val Glu Glu Val Glu Glu Asp Ser Glu Val Leu Ala Ser Glu Lys Glu Lys Asp Val Met Pro Lys Gly Pro Val Gln Glu Ala Gly Ala Glu His Leu Ala Gln Gly Ser Glu Thr Gly Gln Ala Thr Pro Glu Ser Leu Glu Val Pro Glu Val Thr Ala Asp Val Asp His Val Ala Thr Cys Gln Val Ile Lys Leu Gln Gln Leu Met Glu Gln Ala Val Ala Pro Glu Ser Ser Glu Thr Leu Thr Asp Ser Glu Thr Asn Gly Ser Thr Pro Leu Ala Asp Ser Asp Thr Ala Asp Gly Thr Gln Gln Asp Glu Thr Ile Asp Ser Gln Asp Ser Lys Ala Thr Ala Ala Val Arg Gln Ser Gln Val Thr Glu Glu Glu Ala Ala Thr Ala Gln Lys Glu Glu Pro Ser Thr Leu Pro Asn Asn Val Pro Ala Gln Glu Glu His Gly Glu Pro Gly Arg Asp Val Leu Glu Pro Thr Gln Gln Glu Leu Thr Ala Ala Ala Val Pro Val Leu Ala Lys Thr Glu Val Gly Gln Glu Gly Glu Val Asp Trp Leu Asp Gly Glu Lys Val Lys Glu Glu Gln Glu Val Phe Val His Ser Gly Pro Asn Ser Gln Lys Ala Ala Asp Val Thr Tyr Asp Ser Glu Val Met Gly Val Ala Gly Cys Gln Glu Lys Glu Ser Thr Glu Val Gln Ser Leu Ser Leu Glu Glu Gly Glu Met Glu

Thr Asp Val Glu Lys Glu Lys Arg Glu Thr Lys Pro Glu Gln Val Ser Glu Glu Gly Glu Gln Glu Thr Ala Ala Pro Glu His Glu Gly Thr Tyr Gly Lys Pro Val Leu Thr Leu Asp Met Pro Ser Ser Glu Arg Gly Lys Ala Leu Gly Ser Leu Gly Gly Ser Pro Ser Leu Pro Asp Gln Asp Lys Ala Gly Cys Ile Glu Val Gln Val Gln Ser Leu Asp Thr Thr Val Thr Gln Thr Ala Glu Ala Val Glu Lys Val Ile Glu Thr Val Val Ile Ser Glu Thr Gly Glu Ser Pro Glu Cys Val Gly Ala His Leu Leu Pro Ala Glu Lys Ser Ser Ala Thr Gly Gly His Trp Thr Leu Gln His Ala Glu Asp Thr Val Pro Leu Gly Pro Glu Ser Gln Ala Glu Ser Ile Pro Ile Ile Val Thr Pro Ala Pro Glu Ser Thr Leu His Pro Asp Leu Gln Gly Glu Ile Ser Ala Ser Gln Arg Glu Arg Ser Glu Glu Glu Asp Lys Pro Asp Ala Gly Pro Asp Ala Asp Gly Lys Glu Ser Thr Ala Ile Glu Lys Val Leu Lys Ala Glu Pro Glu Ile Leu Glu Leu Glu Ser Lys Ser Asn Lys Ile Val Leu Asn Val Ile Gln Thr Ala Val Asp Gln Phe Ala Arg Thr Glu Thr Ala Pro Glu Thr His Ala Tyr Asp Ser Gln Thr Gln Val Pro Ala Cys Arg Leu Asp Ser Arg Glu Pro Asn Arg Cys Trp Thr Lys Met Lys Asp Ala Lys Met Lys His Pro Val Pro Gln Pro Arg Glu Asp Leu Gln Val Leu Thr Val Leu Glu Ala Trp Ala Gln Pro Arg Lys Cys Leu Pro Arg Leu Gln Leu Lys Ala Pro Val Ser Lys

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<212> PRT

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<211> 10
<212> PRT
<213> Artificial Sequence
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<210> 8
<211> 10
<212> PRT
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<211> 10
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<223> Palmitylation site for GAP-43 protein
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<210> 11
<211> 23
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<213> Bos taurus
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Lys Lys Asn Lys Lys Glu Ala
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<210> 12
<211> 23
<212> PRT
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<400> 12
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Lys Lys Ser Lys Lys Glu Ala
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20

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<223> Phosphorylation consensus site for MacMARCKS/F52
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<400> 13
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<210> 14
<211> 20
<212> PRT
<213> Unknown
<220>
<223> Calmodulin binding domain for myosin light chain
      kinase protein
<400> 14
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Phe Lys Lys Cys
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<211> 23
<212> PRT
<213> Rattus norvegicus
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<213> Rattus norvegicus
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<400> 17
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<213> Rattus norvegicus
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<223> SSeCKS phosphorylation consensus sequence
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<222> (3)...(3)
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<221> VARIANT
<222> (4)...(5)
<223> any amino acid
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<222> (7)...(7)
<223> any amino acid
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<222> (11)...(11)
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<222> (12)...(12)
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Lys Xaa Xaa Xaa
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<211> 7
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<213> Artificial Sequence
<220>
<223> consensus sequence
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<213> Notophthalmus viridescens
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<222> (20)...(46)
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25
Ser Ser Glu Arg Leu Arg
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<212> PRT
<213> Rattus norvegicus
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<212> PRT
<213> Rattus norvegicus
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<210> 24
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<223> Oligonucleotide primer
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26
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<211> 24
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<213> Artificial Sequence
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<212> DNA

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<210> 33
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<212> PRT
<213> Artificial Sequence
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<210> 34
<211> 16
<212> PRT
<213> Artificial Sequence
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<223> SSeCKS mutated cyclin binding site
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<210> 35
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<212> PRT
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<223> SSeCKS mutated phosphoserine cyclin binding site
<221> VARIANT
<222> (6) ... (6)
<223> phosphatidyl serine
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V

<221> VARIANT

<222> (14)...(14)

<223> phosphatidyl serine

<400> 35

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